

ABSTRACT

5 A method is provided for the detection of defects on a semiconductor
wafer by checking individual pixels on the wafer, collecting the signature
of each pixel, defined by the way in which it responds to the light of a
scanning beam, and determining whether the signature is that of a
faultless pixel or of a pixel that is defective or suspect to be defective. An
apparatus is also provided for the determination of such defects, which
10 comprises a stage for supporting a wafer, a laser source generating a
beam that is directed onto the wafer, collecting optics and photoelectric
sensors for collecting the laser light scattered by the wafer in a number
of directions and generating corresponding analog signals, an A/D
converter deriving from said signals digital components defining pixel
signatures, and selection systems for identifying the signatures of
15 -suspect pixels and verifying whether the suspect pixels are indeed
defective.